UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	SIMPSON et al.	ART UNIT:	2617
APPLN. NO.:	10/721,444	EXAMINER:	LAM, Dung Le
FILED:	November 25, 2003	DOCKET NO.:	CE11066JI121
TITLE:	RECEPTION TIMING METHOD AND APPARATUS		

REMARKS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully submits that the Examiner's August 6, 2009 Final Office Action contains a clear error because one or more limitations are not met by the cited references. Claims 1-5, 8-10, and 16-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,084,869 (Fishman) in view of U.S. Publ. No. 2004/0264397 (Benveniste) and U.S. Pat. No. 7,245,946 (Liu). Claims 22 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,192,230 (vanBokhorst) in view of U.S. Pat. No. 6,084,869 (Fishman), U.S. Publ. No. 2004/0264397 (Benveniste), and U.S. Pat. No. 7,245,946 (Liu). Claims 6, 11-13, and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,084,869 (Fishman), U.S. Publ. No. 2004/0264397 (Benveniste), and U.S. Pat. No. 7,245,946 (Liu) in view of U.S. Publ. No. 2004/0013135 (Haddad).

The claimed subject matter as representatively set forth in claim 1 is primarily directed to a method for use by a subscriber unit to select a time to receive a transmission from a wireless local area network (WLAN) access point (AP) using a shared wireless communication resource. The method comprises receiving a beacon transmission, at a scheduled time, from the AP with first information that corresponds to times *when other subscriber units* are proposing to utilize the shared wireless communication resource. The method uses the first information to select a particular time to *receive data* from the AP using the shared wireless communication resource. Independent claim 8 is primarily directed to a method for use by a WLAN AP that complements claim 1. Independent claim 16 is primarily directed to a method for use by multiple subscriber

units and an access point and augments claims 1 and 8. Independent claim 22 is primarily directed to an apparatus (subscriber unit) that can perform the method of claim 1.

Fishman is directed towards reserving channel resources in a packet-switched multiple-path communication system. See Fishman Abstract. Fishman FIG. 1 describes a system where multiple very small aperture terminals (VSATs) 12 communicate with each other using a network control centre 16 (NCC). The NCC 16 has a set each of transmitting and receiving antenna, to enable the VSATs to communicate. Further, each VSAT transmits a reservation request clearly indicating the period of time to be reserved for transmission. See Fishman col. 3 lines 51-61. Furthermore, the VSAT can receive a message indicating reservation of other stations at any instant from the relay system. See Fishman col. 3 line 61 to col. 4 line 5. *Note that a person of ordinary skill in the art would not consider the satellite system of Fishman equivalent to a "wireless local area network" as recited in the preamble of claim 1.* Note also that Fishman is concerned with scheduling transmissions from the VSAT rather than scheduling receptions by the VSAT.

Benveniste is directed towards a method for coordinating the delivery of frames to, and the receipt of frames from, a power-saving station in a wireless local-area network (LAN). Operationally, Benveniste establishes a wake-up schedule for the power-saving station (such as a notebook computer, a personal digital assistant (PDA), or a tablet PC) based on a temporal period and temporal offset that reduces the frequency with which multiple stations in a network wake up simultaneously, thereby reducing power consumption in the power-saving station. See Benveniste Abstract and para [0007]. Benveniste is concerned only with the coordination of scheduling between the power-saving station and the network; the power-saving station does not have information regarding the other stations in communication with the network.

Liu is directed towards a system and method that utilizes a scheduler based on a transmission power consumption calculation and prioritizing algorithm. The system includes an access point having a priority queue, one or more stations, an Automatic Power Saving Delivery (APSD) frame with an association ID for identifying one of the stations, and a scheduled wake-up time for the identified station. An algorithm is employed for calculating the total transmission power consumption of downlink data for the stations. The current data to be transmitted to each station is accessed by the algorithm to determine the total transmission power consumption to each station. A priority queue in the access point (AP) is ordered from the lowest to the highest receiving power consumption, assigning the highest priority to the lowest power consumption

transmission to minimize total power consumption to the stations in the AP queue. See Liu Abstract. Liu is also concerned only with the coordination of scheduling between the power-saving station and the network; the power-saving station does not have information regarding the other stations in communication with the network.

It is well known in the art that VSATs are stationary and connected to a direct power supply and do not require batteries. Thus, the sleeping and awakening process for the mobile stations of Benveniste is not applicable to the VSATs of Fishman, and the Office Action's stated motivation to combine Fishman's scheduling and Benveniste's wake-up to "be able to conserve the [VSAT] terminals' power while it is in the inactive mode" is faulty. First, Fishman's VSATs do not have an inactive mode. Second, there is no need for power conservation in a VSAT.

The November 12, 2009 Advisory Action responds with the presumption that it is desirable to conserve power in all electronic devices. Applicant does not dispute this sentiment; instead Applicant points out that there is no *need* to conserve power in a VSAT and, although there may be a *desire* to conserve power to reduce this particular operating cost, this desire must be balanced with other business factors such as acquisition costs (e.g., the initial cost of purchase), other operating costs (e.g., repairs), quality of service during operation, etc.

As specifically mentioned in the October 5, 2009 Reply to Office Action, a significant drawback to the August 6, 2009 Final Office Action's proposal to modify Fishman to implement a doze/asleep mode in accordance with Benveniste or a power saving sleep mode in accordance with Liu is that such a modification would affect the reliability of Fishman's VSATs to properly receive reservation messages from the relay system, because sleeping means that the MS is neither transmitting nor receiving. See Benveniste para [0010], where Benveniste clearly states that "*When a station powers off its radio, the station is said to enter the doze state*. A station wakes up from the doze state by powering on its radio to enter the alert state. *While a station is in the doze state, it cannot transmit or receive signals, and is said to be asleep.*" In fact, an important feature of Fishman is that the VSAT can receive a message indicating reservation of other stations at any instant from the relay system. See Fishman col. 3 line 61 to col. 4 line 10 ("The reservation queue 48 is constantly updated as new reservation packets are received."). Thus, the teachings of Fishman explicitly contradict any attempt in add a doze/asleep mode in accordance with Benveniste or Liu. Also, even the improperly combined teachings of Fishman, Benveniste, and Liu are not sufficient to render the claims *prima facie* obvious because the

proposed modification to Fishman provided in the Office Action would render it to be unsatisfactory for its intended purpose (e.g., to have the VSATs properly receive reservation messages from the relay system). *See, e.g.* M.P.E.P. § 2143.01(V).

The Advisory Action has hindsight-reconstructed a "need" to create sleep or idle periods at Fishman's VSAT in order to address a "need" to conserve power. As evidence of hindsight reconstruction, Applicant notes that, in mobile stations, there is a true need to conserve power due to limited battery capacity, and thus sleep or idle periods were implemented. The Advisory Action has falsely elevated a general desire to conserve power to a "need" and then presumed that sleep or idle periods are subsequently needed to address this falsely elevated need to conserve power. Note that other electronic devices similar to VSATs, such as cellular base stations, do not use sleep or idle periods to conserve power and thus Applicant submits that there is clearly no "need" to create sleep or idle periods for Fishman's VSAT. In other words, a general desire to conserve power in VSATs and cellular base stations does not logically lead to the implementation of sleep or idle periods.

Because of the above mentioned reasons, Fishman, Benveniste, and Liu, individually or in combination, do not teach or suggest the feature of "receiving a beacon transmission from the access point comprising first information that corresponds to times when other subscriber units are proposing to utilize the shared wireless communication resource, wherein receiving a beacon transmission comprises receiving the beacon transmission at a scheduled time" as recited in independent claim 1. The above discussion applies equally to the claim 8 feature of "receiving transmissions from a plurality of subscriber units, wherein the transmissions include information that identifies proposed times when each of the plurality of subscriber units proposes to utilize the shared wireless communication resource; including schedule information that corresponds to at least a part of the information in a regularly scheduled beacon transmission to the subscriber units", the claim 16 feature of "at various of the subscriber units: transmitting to the access point information that corresponds to proposed transmission times for at least some of the various of the subscriber units; at the access point: using the information to form a message; transmitting the message in a regularly scheduled beacon transmission to the subscriber units" and the claim 22 feature of "a memory operably coupled to the controller having, at least from time to time, stored therein: a plurality of proposed times received from the access point at which other

subscriber units have proposed to utilize the shared wireless communication resource, wherein the proposed times are part of a regularly scheduled beacon transmission from the access point".

The other cited references, vanBokhorst and Haddad, fail to overcome the deficiencies of Fishman, Benveniste, and Liu with respect to independent claims 1, 8, 16, and 22.

Conclusion

Because the independent claims are not properly rejected, the rejection of the dependent claims should also be withdrawn. Please charge any fees associated herewith, including extension of time fees, to Deposit Account 502117.

Respectfully submitted,

By: /Sylvia Chen/ 04DEC2009

Sylvia Chen
Attorney for Applicants
Registration No. 39,633
Tel. No. (847) 523-1096
Fax No. (847) 523-2350
Email: Sylvia.Chen@motorola.com

Please send correspondence to:
Motorola, Inc.
Intellectual Property Dept. **(SYC)**
600 North U.S. Highway 45, AN475
Libertyville, IL 60048
Customer Number: 20280

Date